

FIG. 1

1: OPERATION MONITORING APPARATUS

2: CONTROLLER

3: CONTROL BUS

5 4: PLANT

FIG. 2

10: COMMUNICATION STATION

20: COMMUNICATION PATH

10 101: TIME SLOT ASSIGNMENT SECTION

102: STORAGE SECTION

103: ASSIGNMENT INFORMATION

104: TIME-DIVISION MULTIPLEX COMMUNICATION SECTION

105: TIME-SYNCHRONOUS COMMUNICATION SECTION

15 106: TIMER SECTION

FIG. 3

#1 TYPE OF COMMUNICATION SECTION

#2 SET OF COMMUNICATION STATIONS

20 103: ASSIGNMENT INFORMATION

110: COMMUNICATION FRAME

112 TIME SLOT

111: COMMUNICATION CYCLE

25

FIG. 4

30: COMMUNICATION SECTION

301: DATA TRANSMISSION SECTION

302: DATA RECEPTION SECTION

5 303: ADDRESS FILE

304: GROUP ADDRESS

FIG. 5

20: COMMUNICATION PATH

10 40: COMMUNICATION SECTION

401: DATA TRANSMISSION SECTION

402a: RECEIVE BUFFER

402b: RECEIVE BUFFER

403: PACKET RECEPTION SECTION

15 404: TIMER SECTION

405: ADDRESS FILE

406: GROUP ADDRESS

407: RECEIVE BUFFER READING SECTION

420: COMMUNICATION PATH

20 430: PC

FIG. 6

50: COMMUNICATION SECTION

501: DATA TRANSMISSION SECTION

25 502: TIMER SECTION

503: DATA RECEPTION SECTION

FIG. 7

1A: COMMUNICATION STATION A

5 1B: COMMUNICATION STATION A

1C: COMMUNICATION STATION A

20: COMMUNICATION PATH

FIG. 8

10 510: NORMAL ACKNOWLEDGMENT

#1 PREDETERMINED TIME

520: RETRANSMISSION

#2 COMMUNICATION STATION A

#3 COMMUNICATION STATION C

15 #4 DATA PACKET 1

#5 DATA PACKET 2

#6 LOST

#7 TIME

#8 NORMAL ACKNOWLEDGMENT

20

FIG. 9

60: COMMUNICATION SECTION

601: DATA TRANSMISSION SECTION

602: DATA RECEPTION SECTION

25 603: STORAGE SECTION

604: SEQUENCE NUMBER

FIG. 10

#1 SEQUENCE NUMBER
5 #2 TRANSMITTING STATION
#3 RECEIVING STATION
#4 NEGATIVE ACKNOWLEDGMENT PACKET

FIG. 11

10 #1 SEQUENCE NUMBER
#2 TRANSMITTING STATION
#3 RECEIVING STATION
#4 DELIVERY ACKNOWLEDGMENT PACKET
#5 ACKNOWLEDGMENT PACKET

15

FIG. 12

70: COMMUNICATION SECTION
701: TRANSMISSION REQUESTING SECTION
702: HALT REQUESTING SECTION
20 703: DATA TRANSMISSION SECTION
704: DATA RECEPTION SECTION

FIG. 13

#1 DATA PACKET
25 704: DATA RECEPTION SECTION

720a: RECEIVE BUFFER
720b: RECEIVE BUFFER
721: PACKET RECEPTION SECTION
722: TIMER SECTION
5 723: RECEIVE BUFFER READING SECTION

FIG. 14

20: COMMUNICATION PATH
80: COMMUNICATION STATION
10 420: COMMUNICATION PATH
430: PC
801a: TRANSMISSION QUEUE SECTION
801b: TRANSMISSION QUEUE SECTION
801c: TRANSMISSION QUEUE SECTION
15 802a: RECEPTION QUEUE SECTION
802b: RECEPTION QUEUE SECTION
802c: RECEPTION QUEUE SECTION
803: TRANSMISSION SECTION
804: RECEPTION SECTION
20 805: READING SECTION

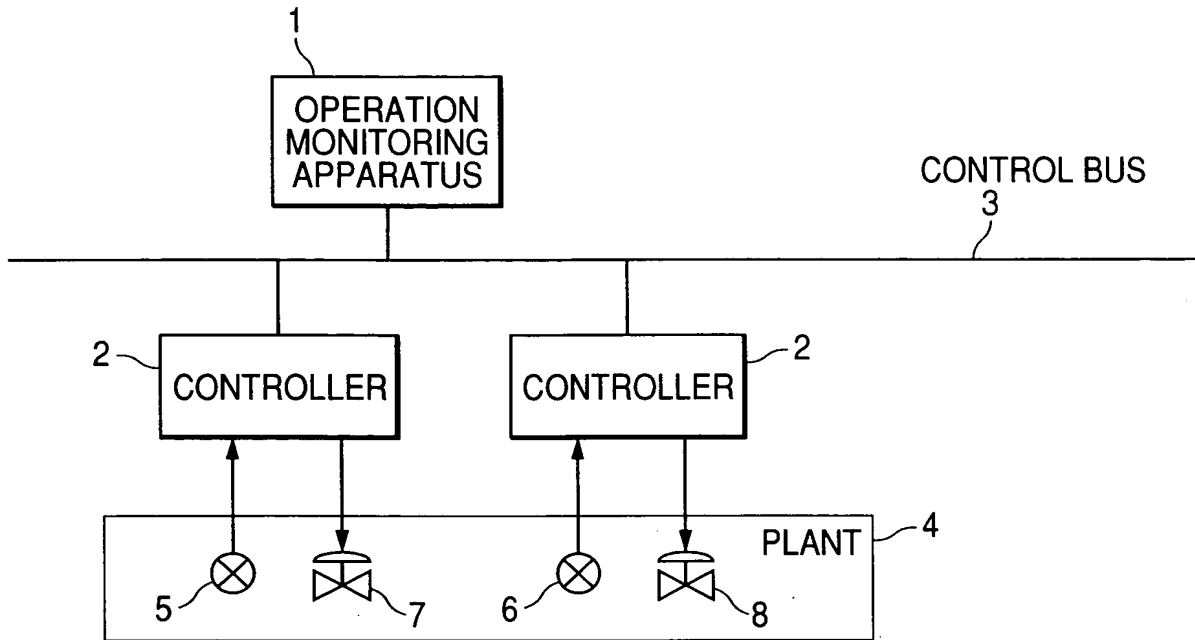
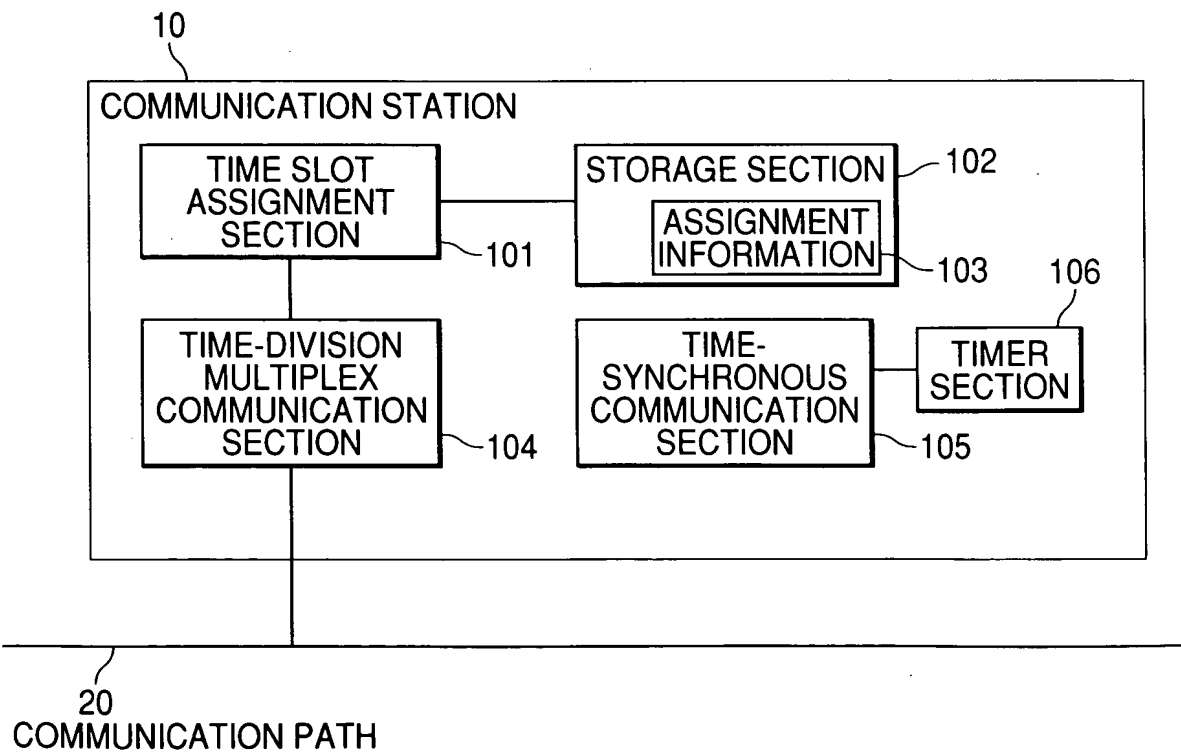
FIG. 1**FIG. 2**

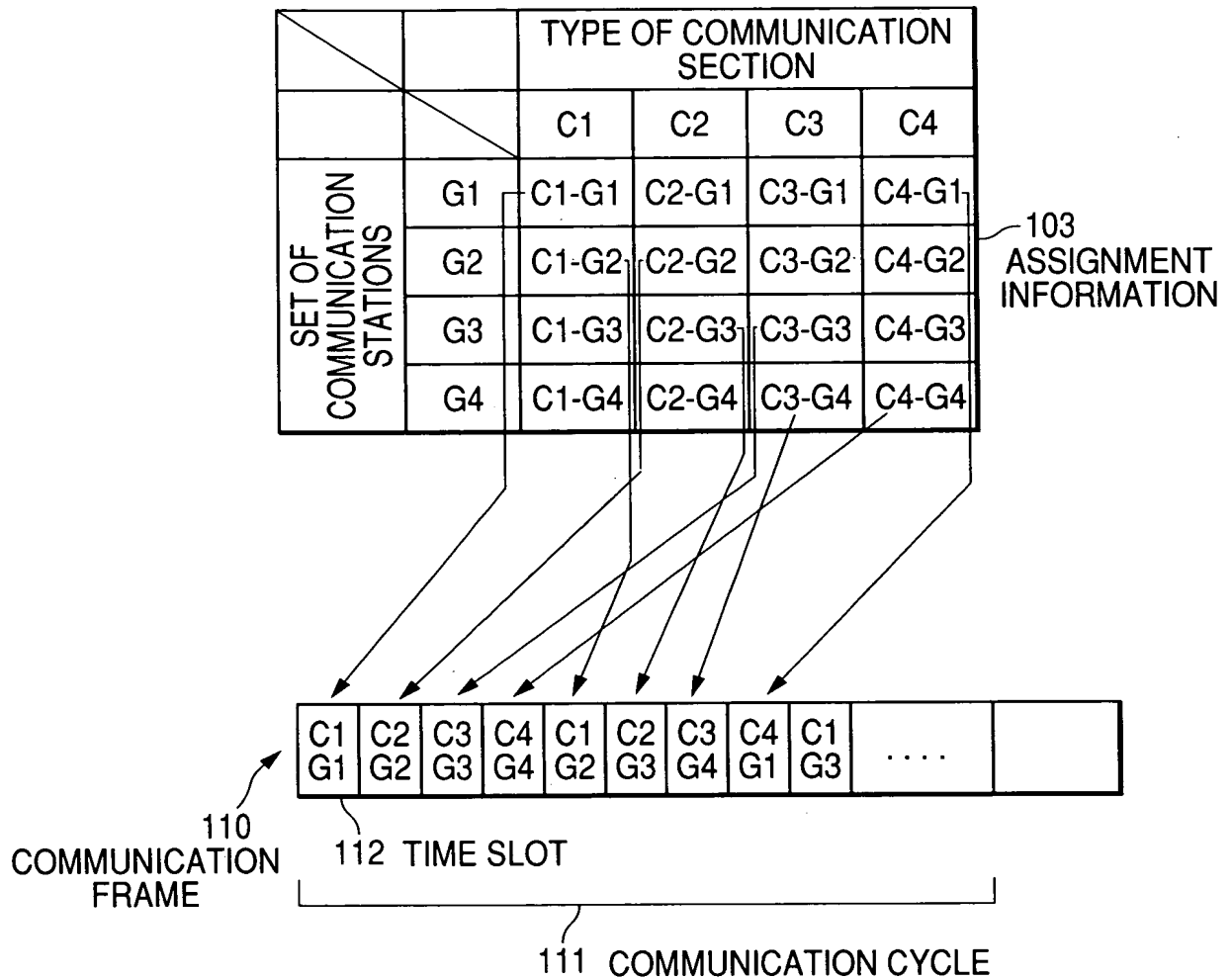
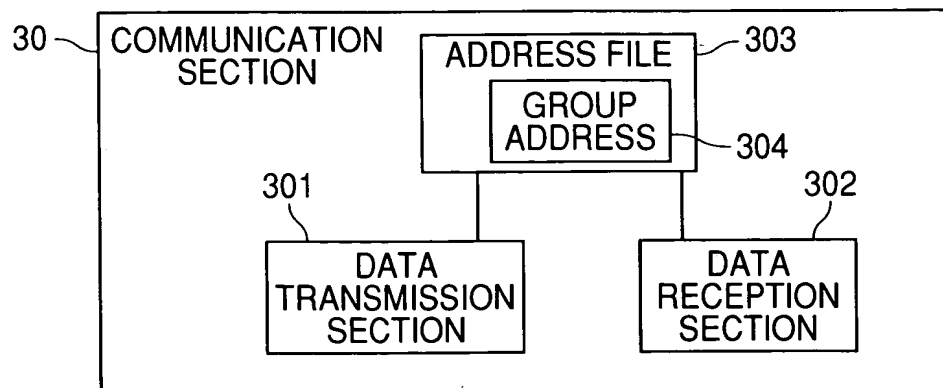
FIG. 3**FIG. 4**

FIG. 5

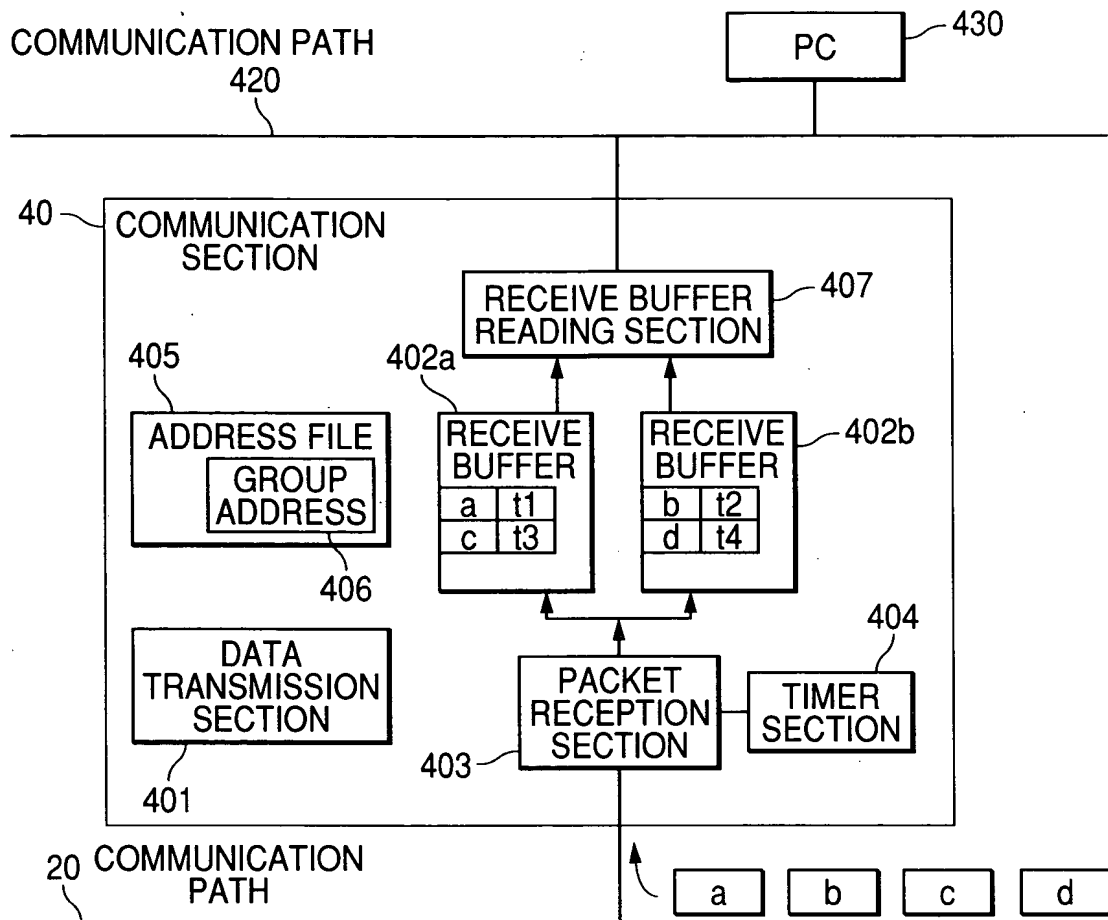


FIG. 6

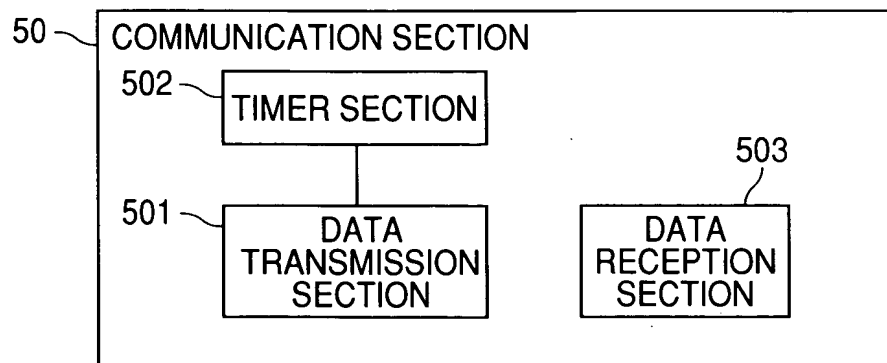


FIG. 7

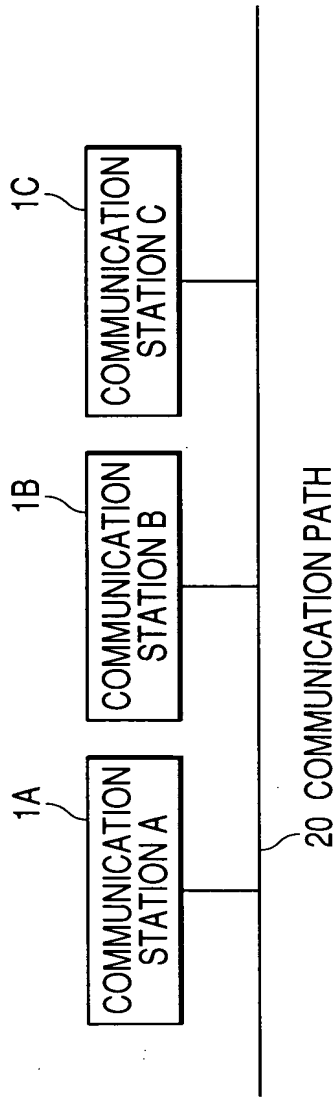


FIG. 8

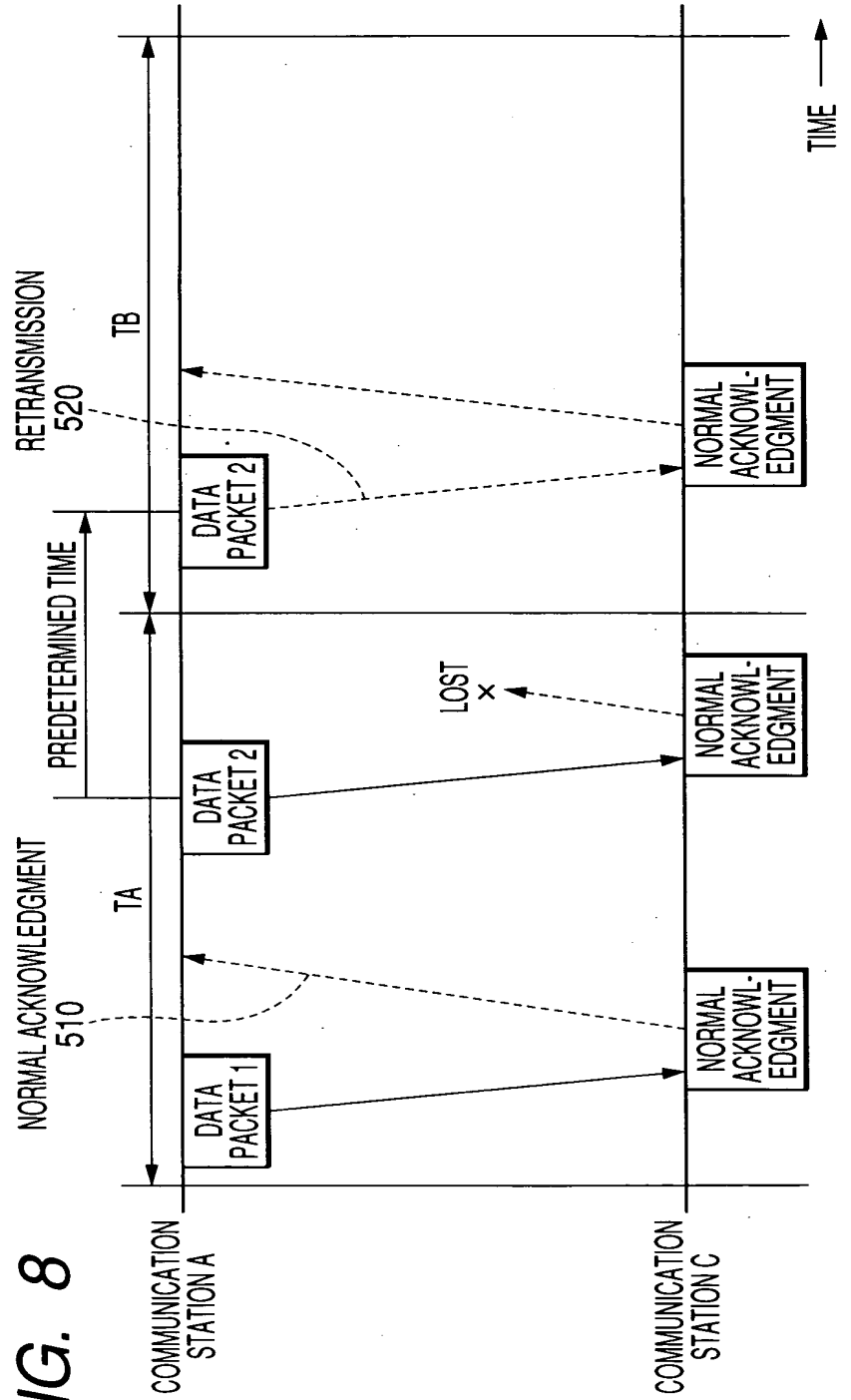


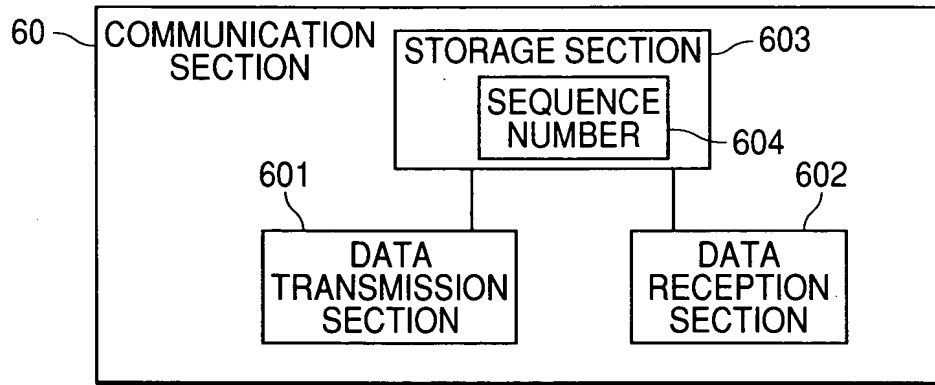
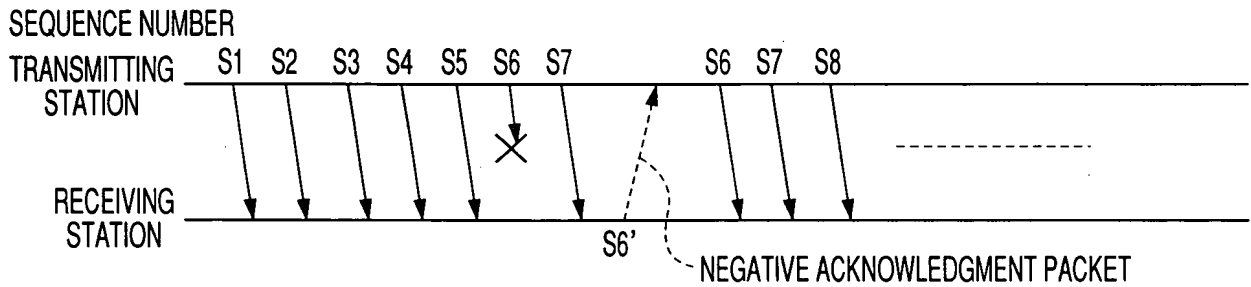
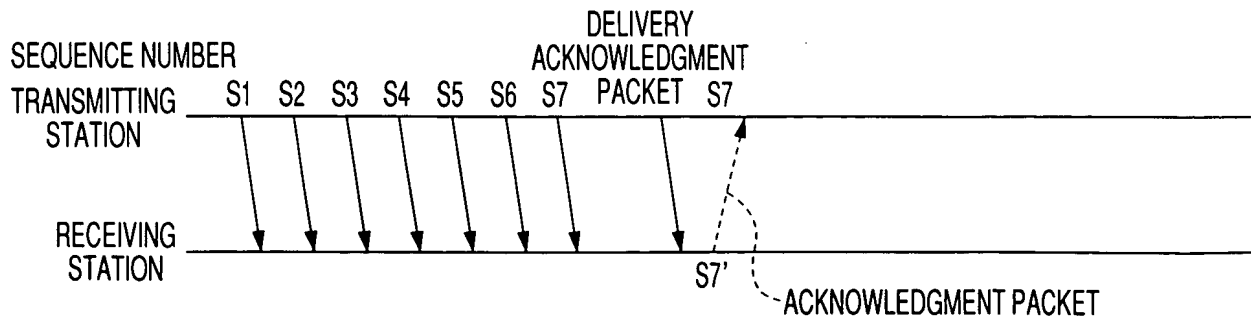
FIG. 9**FIG. 10****FIG. 11**

FIG. 12

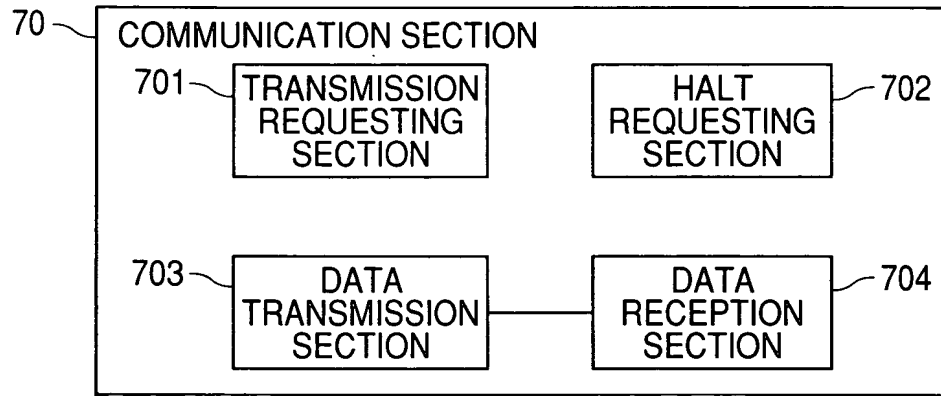


FIG. 13

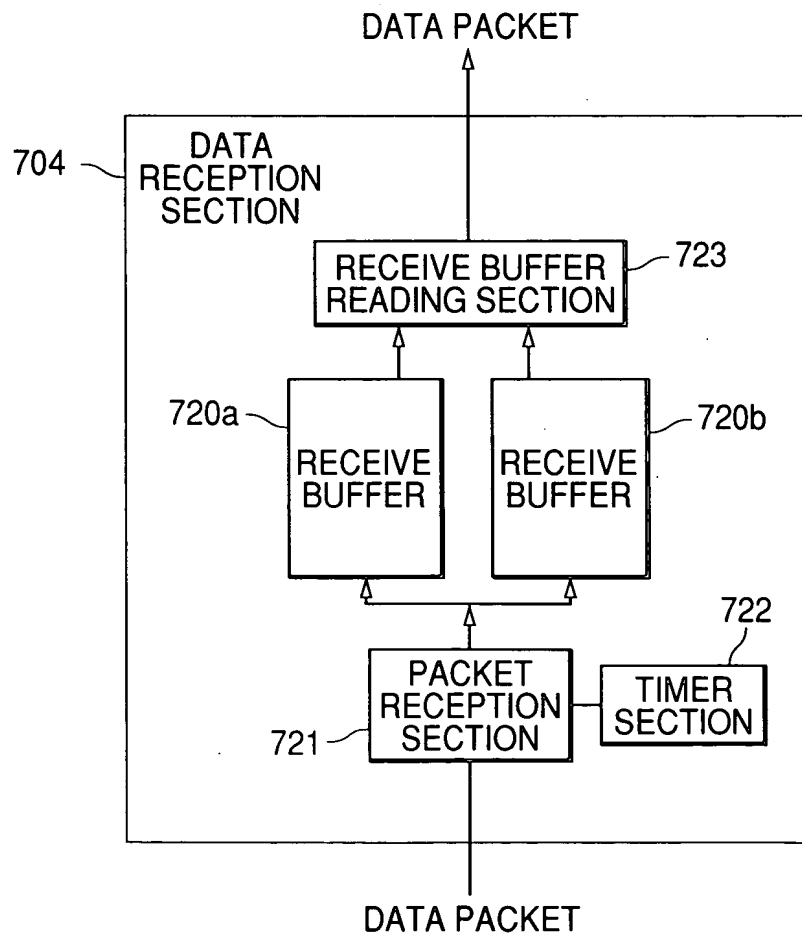


FIG. 14

